

MSU 4.1-528  
Appl. No. 09/669,833  
September 5, 2003  
Reply to Office Action of July 15, 2003  
And Notice of Non-Compliant Amendment  
Mailed August 27, 2003

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-28 (Cancelled)

-29- (Currently amended)

A method for producing an antibody against a *Sarcocystis neurona* antigen selected from the group consisting of a 16  $\pm 4$   $\pm/-4$  kDa antigen and a 30  $\pm 4$   $\pm/-4$  kDa antigen, as determined by SDS polyacrylamide gel electrophoresis, comprising:

(a) providing a *Sarcocystis neurona* antigen selected from the group consisting of the 16  $\pm 4$   $\pm/-4$  kDa antigen and the 30  $\pm 4$   $\pm/-4$  kDa antigen;

(b) admixing the antigen with an adjuvant to produce an admixture;

(c) immunizing a mammal with the admixture to produce antibodies against antigen; and

(d) removing serum from the immunized mammal and isolating from the serum the antibody against the *Sarcocystis neurona* antigen selected from the group consisting of the  $\pm 4$   $\pm/-4$  16 kDa antigen and the

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$(\pm 4)$   $(+/-4)$  30 kDa antigen.

-30- (Currently amended)

A method for producing a monoclonal antibody against a *Sarcocystis neurona* antigen selected from the group consisting of a 16  $(\pm 4)$   $(+/-4)$  kDa antigen and a 30  $(\pm 4)$   $(+/-4)$  kDa antigen, as determined by SDS 5 polyacrylamide gel electrophoresis, comprising:

(a) providing a microorganism containing a DNA encoding a fusion polypeptide in which a *Sarcocystis neurona* antigen selected from the group consisting of the 16  $(\pm 4)$   $(+/-4)$  kDa antigen and the 30  $(\pm 4)$   $(+/-4)$  10 kDa antigen;

(b) admixing the antigen with an adjuvant to produce an admixture;

(c) inoculating mice with the admixture to produce antibodies against antigen;

(d) removing the spleens from the mice which produce the antibodies against the antigen;

(e) removing spleen cells from the spleens and mixing the spleen cells from the spleens with mouse

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myeloma cells to produce a mixture of fused cells  
20 consisting of spleen cells fused to myeloma cells, the  
spleen cells, and the myeloma cells;

(f) selecting the fused cells on cell culture  
medium in which the fused cells can grow but in which  
the spleen cells and the myeloma cells cannot grow; and

25 (g) screening the fused cells for fused cells  
which produce the monoclonal antibody against the  
*Sarcocystis neurona* antigen selected from the group  
consisting of the 16  $\pm 4$   $\pm 4$  kDa antigen and the 30  
 $\pm 4$   $\pm 4$  kDa antigen to produce the monoclonal  
30 antibody.

Claim 31 (Cancelled)

Claims 32-35 (Cancelled)

Claims 36-50 (Cancelled)